

Express Mail No. EV 148299895 US  
Docket No. 2023600-7006233003

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Yuri V. Melnik, et al.

Assignee: Technologies and Devices  
International, Inc.

Filing Date: Herewith

Examiner: Unknown

Serial No.: New Application

Group Art Unit: Unknown

Title: **REACTOR FOR EXTENDED DURATION GROWTH OF GALLIUM  
CONTAINING SINGLE CRYSTALS**

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Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT**

Sir:

In accordance with 37 C.F.R. § 1.56, the references listed on the attached Form PTO-1449 are being brought to the attention of the Examiner for consideration in connection with the examination of the above-identified patent application.

**I. Timing of the Information Disclosure Statement:**

This Information Disclosure Statement is filed:

- With the new patent application submitted herewith (37 C.F.R. § 1.97(a)).
- Within three months after the filing date of the application or within three months after the date of entry of the national stage of a PCT application as set forth in 37 C.F.R. § 1.491.
- Before the mailing date of a first Office action on the merits. In the event, however, that an Office Action on the merits has crossed in the mail with this Information Disclosure Statement, no fee will be due if the certification below is checked. Otherwise, the Commissioner is hereby authorized to charge Deposit Account No. 50-2518 for the fee (\$180) set forth in 37 C.F.R. § 1.17(p) and any additional required fees.

This Information Disclosure Statement is filed:

- After the first Office Action and more than three months after the application's filing date; or PCT national stage date of entry filing but, as far as is known to the undersigned, prior to the mailing date of either a final rejection or a notice of allowance, whichever occurs first, and the Commissioner is hereby authorized to charge Deposit Account No. 50-2518 for the fee (\$180) set forth in 37 C.F.R. § 1.17(p) and any additional required fees.

This Information Disclosure Statement is filed:

- After the mailing date of either a final rejection or a notice of allowance, whichever occurred first, and is accompanied by the fee (\$180.00) set forth in 37 C.F.R. § 1.17(i)(1) and a certification as specified in 37 C.F.R. § 1.97(e), as checked below. This document is to be considered as a petition requesting consideration of the Information Disclosure Statement.

The undersigned certifies that:

- Each item of information contained in the Information Disclosure Statement was cited in a communication mailed from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this information disclosure statement.
- No item of information contained in this information disclosure statement was cited in a communication mailed from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement.

**II. Copies of the Cited Items:**

- Copies of all of the items listed on the attached Form PTO-1449 are enclosed.
- Copies of only the following items listed on the attached Form PTO-1449 are enclosed: \_\_\_\_\_.
- Copies of those items which are marked with an asterisk (\*) in the attached Form PTO-1449 are not supplied because they were previously cited by or submitted to the Patent Office in a prior Application No. 09/903,299, filed July 11, 2001 which is a continuation of Application No. 09/900,833, filed July 6, 2001 and relied upon in this application for an earlier filing date under 35 U.S.C § 120. See 37 C.F.R. § 1.98(d).

- Copies of those items which are marked with an asterisk (\*\*) in the attached Form PTO-1499 were cited in a foreign examination report in a related case. A copy of the search report and the cited references not already of record in this application are attached hereto.

**III. Concise Explanation of Relevance:**

- A concise explanation of relevance of the items listed on Form PTO-1449 is not given.
- A concise explanation of relevance of the items listed on Form PTO-1449 is in the form of an English language copy of a Search Report from a foreign patent office, issued in a counterpart application, which refers to the relevant portions of the references (copy attached).

**IV. Conclusion:**

Citation of the above documents shall not be construed as:

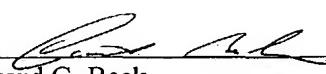
1. an admission that the documents are necessarily prior art with respect to the instant invention;
2. a representation that a search has been made, other than as described above; or
3. an admission that the information cited herein is, or is considered to be, material to patentability as defined in § 1.56(b).

It is respectfully requested that the Examiner indicate consideration of the cited references by returning a copy of the attached form PTO 1449 with initials or other appropriate marks.

The Commissioner is hereby authorized to charge Deposit Account No. **50-2518** Docket No. **2023600-7006233033** for any additional fees required in connection with the filing of this Information Disclosure Statement.

DATE: 8/1/07

Respectfully submitted,

By:   
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Registration No.: 37,776

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FORM PTO-1449 (Modified [6-1])

**LIST OF PATENTS AND PUBLICATIONS FOR  
APPLICANT(S)' INFORMATION DISCLOSURE  
STATEMENT**  
(Use several sheets if necessary)

ATTY. DOCKET NO.  
2023600-700623003APPLICATION NO.  
New Application

INVENTOR: Yuri V. Melnik, et al.

FILING DATE: Here with GROUP ART UNIT:  
Unknown**REFERENCE DESIGNATION****U.S. PATENT DOCUMENTS**

EXAM'R INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	Subclass	Filing Date If Appropriate
	*A1	5,322,592	06/21/94	Beckers, et al.	117	80	09/28/92
	*A2	5,679,152	10/21/97	Tischler, et al.	117	97	01/27/94
	*A3	5,770,887	06/23/98	Tadatomo, et al.	257	613	10/11/94
	*A4	5,875,769	03/02/99	Toyama, et al.	125	16.01	03/21/97
	*A5	5,935,321	08/10/99	Chiou, et al.	117	13	08/01/97
	*A6	6,006,738	12/28/99	Itoh, et al.	125	21	07/16/97
	*A7	6,056,817	05/02/00	Uchida, et al.	117	4	03/25/97
	*A8	6,136,093	10/24/00	Shiomii, et al.	117	04	01/22/99
	*A9	6,139,631	10/31/00	Kato	117	200	08/12/98
	*A10	6,146,457	11/14/00	Solomon	117	90	07/02/98
	*A11	6,177,292	01/23/01	Hong, et al.	438	46	12/05/97
	*A12	6,177,688	01/23/01	Linthicum, et al.	257	77	11/24/98
	*A13	6,218,280	04/17/01	Kryliouk, et al.	438	607	06/18/99

**FOREIGN PATENT DOCUMENTS**

EXAM'R INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	Subclass	TRANSLAT'N	
							yes	no
	B1							
	B2							
	B3							

**OTHER ART (Include Author, Title, Date, Pertinent Pages, etc.)**

C1	
C2	
C3	
C4	

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant(s).

FORM PTO-1449 (Modified [6-1])

**LIST OF PATENTS AND PUBLICATIONS FOR  
APPLICANT(S) INFORMATION DISCLOSURE  
STATEMENT**  
(Use several sheets if necessary)

ATTY. DOCKET  
NO.2023600-7006233003SERIAL NO. New  
Application

INVENTOR(s): Yuri V. Melnik, et al.

FILING DATE: Herewith GROUP ART UNIT:  
Unknown**REFERENCE DESIGNATION****U.S. PATENT DOCUMENTS**

EXAM'R INITIAL		DOCUMENT NUMBER	DATE	NAME	Class	Subclass	Filing Date If Appropriate
	*A1	5,587,014	12-1996	Iyechika, et al.	117	90	
	*A2	5,492,734	02-1996	Matsumoto, et al.	427	535	
	*A3	5,237,182	08-1993	Kitagawa, et al.	257	15	
	*A4	3,865,655	02-1975	Pankove	438	565	
	*A5	4,268,842	05-1981	Jacob, et al.	257	76	
	*A6	5,074,954	12-1991	Nishizawa	118	719	
	*A7	5,334,250	08-1994	Mikami, et al.	118	724	
	*A8	5,993,542	11-1999	Yanashima et al.	117	84	
	*A9	6,110,290	08-2000	Maeda	118	725	
	*A10	6,113,985	09-2000	Suscavage, et al.	427	255.39	
	*A11	6,156,581	12-2000	Vaudo, et al.	438	22	
	*A12	6,337,102	01-2002	Forrest, et al.	427	64	
	*A13	2002-0028565	03-2002	Nikolaev, et al.	438	478	
	*A14	6,406,540	06-2002	Harris, et al.	117	104	
	*A15	20020155713a1	10-2002	Tsetkov, et al.	438	689	
	*A16	6,476,420	11-2002	Nikolaev, et al.	257	82	
	*A17	20020174833	11-2002	Tsetkov, et al.	118	724	

**FOREIGN PATENT DOCUMENTS**

EXAM'R INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	Subclass	TRANSLAT'N	
							yes	no
	*B1	JP 07-045538	02-1995	Japan	021	205		
	B2							
	B3							
	B4							
	B5							

**OTHER ART (Include Author, Title, Date, Pertinent Pages, etc.)**

C1	
C2	

EXAMINER

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